

Abstract of the Disclosure

Thermal conductivity of glassware forming blank molds and blow molds of Ni-Resist ductile iron is selectively controlled by formation of compacted graphite in the mold microstructure during preparation of the melt and casting of the mold bodies. Specifically, with a Type D5 Ni-Resist ductile iron according to ASTM-A439-84, compacted graphite is selectively formed in the cast microstructure of the mold body by reducing the magnesium and sulphur concentrations in the iron composition to the range of 0.01 to 0.04 wt % magnesium and 0.00 to 0.01 wt % sulphur, and adding titanium to the iron composition in the range of 0.10 to 0.25 wt % titanium. Whereas formation of compacted graphite in the cast microstructure is normally considered to be undesirable for glassware forming molds, it has been found that formation of a small but appreciable amount of graphite provides the opportunity selectively to tailor the thermal conductivity characteristics of the mold body.